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(71) Applicant

Gary Edward Russell,
91A Peace Road, Stanway, Colchester, Essex

(72) Inventor

Gary Edward Russell

(74) Agent and/or Address for Service

Sanderson & Co.,
97 High Street, Colchester, Essex CO1 1TH

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A6H

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(54) **Billiard cues**

(57) A cue for playing snooker, billiards or the like has a butt portion 10 for gripping by a user and a shaft 11 extending from the butt portion and terminating in a tip 12, the shaft 11 having two substantially planar flanks (15, Figs. 2B-2D) extending along its length and lying at an acute angle to one another. These flanks serve as guide surfaces on which the cue can be supported when striking a ball. The cue may be made from wood or fibre-reinforced synthetic plastics.

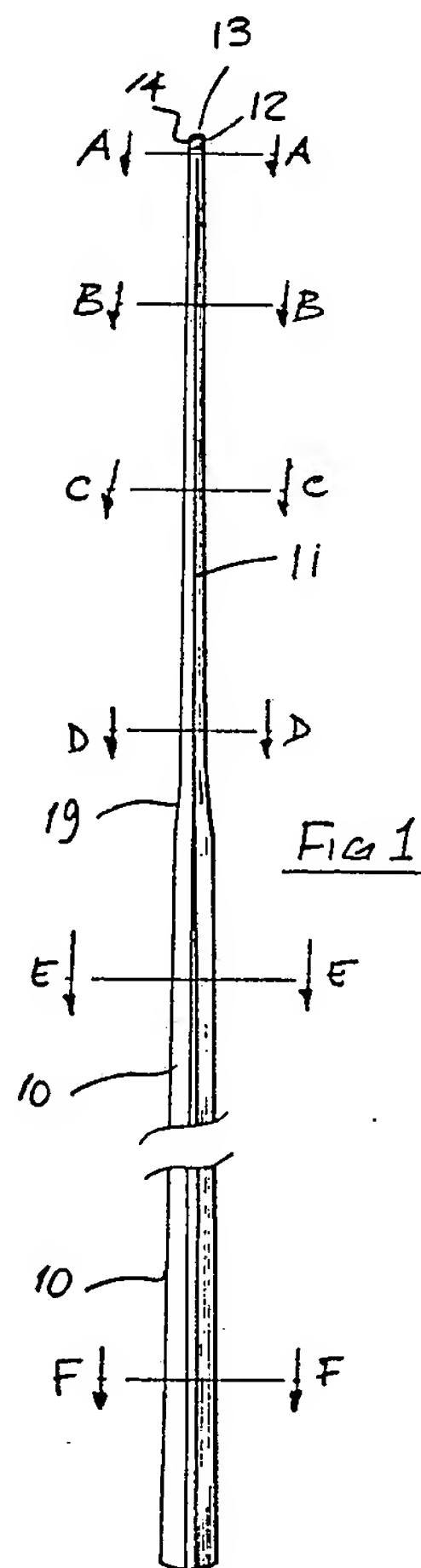


Fig 2A.

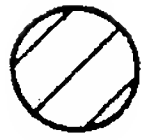


Fig 2B

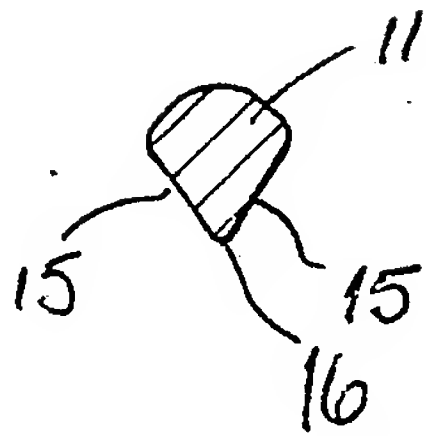


Fig 2C

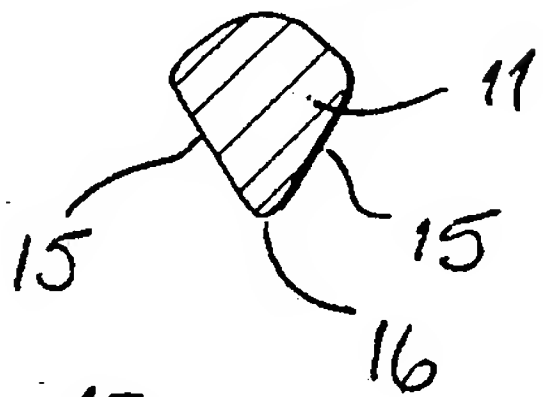


Fig 2D.

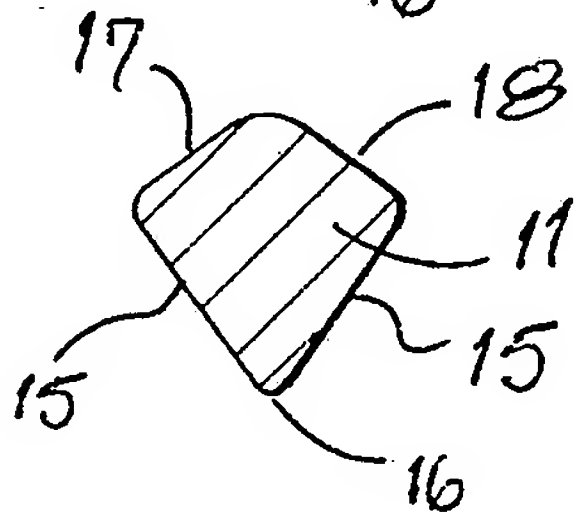


Fig 2E.

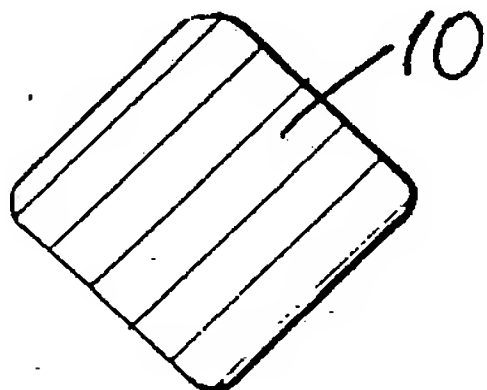
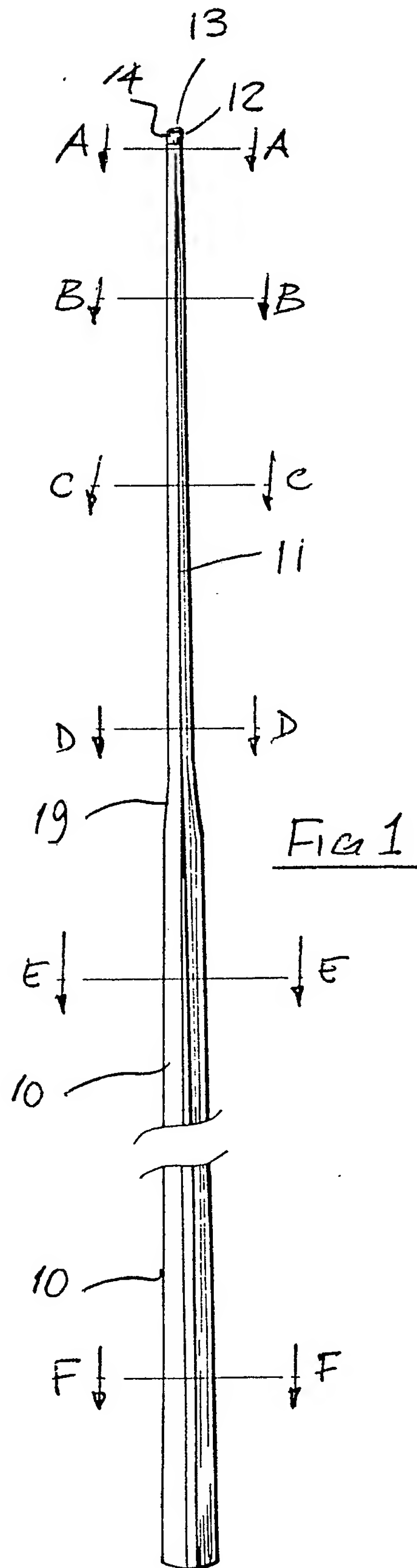
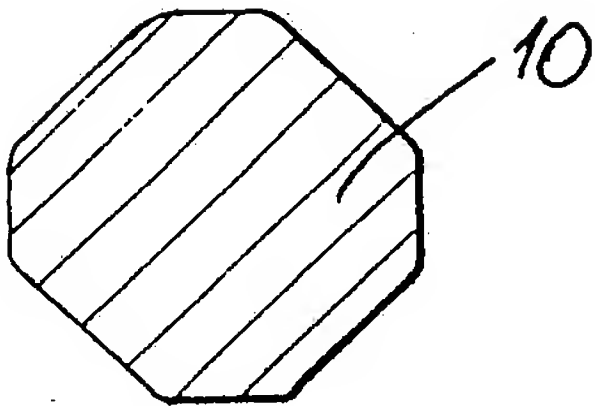
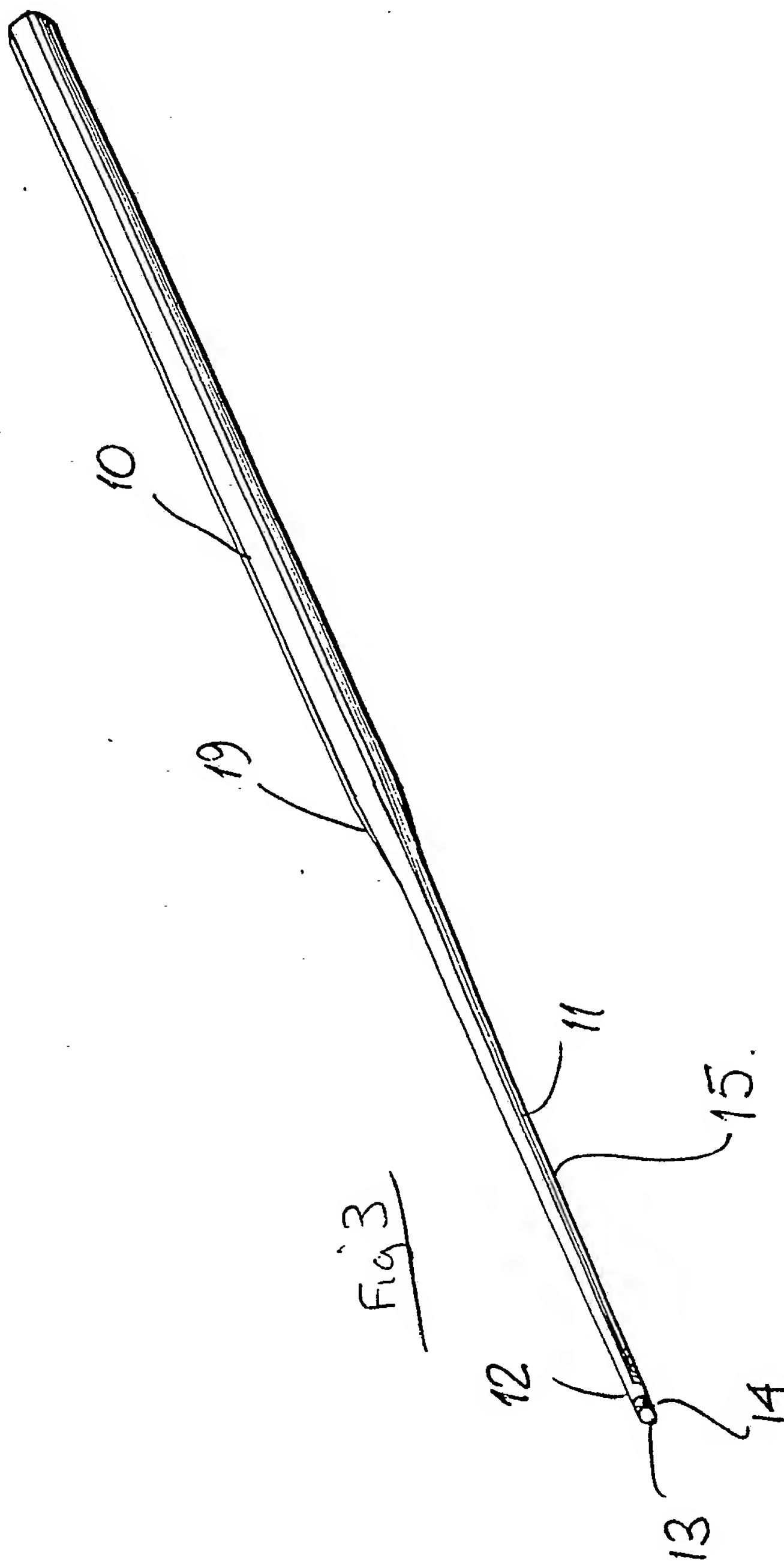


Fig 2F.



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SPECIFICATION

Billiard cue

5 This invention relates to a cue for use in playing ball games such as snooker, billiards or the like. Such a cue will hereinafter be referred to as a "billiard cue".

A conventional billiard cue is of circular cross-sectional shape, tapering from a butt portion, which is intended to be gripped by the hand of a user, to a tip, used to strike a ball. The cross-sectional shape of a typical billiard cue is circular at least over the length of the shaft, between the tip and the butt portion, though it is known to provide the butt portion with a non-circular cross-sectional shape, in order to provide a user with a better surface for gripping and controlling the cue.

20 When using a billiard cue, the shaft must be supported in a suitable manner so that the tip may strike a ball at the required height above the playing surface. Though for some shots a device known as a rest, usually attached to an elongate handle, may be employed, mostly the shaft is rested on a crutch defined by the fingers or the fingers and the thumb of one of a user's hands, the user's other hand gripping the cue butt portion. Then, the cue is slid lengthwise to strike a ball, motion being imparted to the cue by said other hand which grasps the butt. During this motion, it is most important that the cue is moved as linearly as possible, without any rotation about the cue axis being imparted thereto. Such an action is difficult accurately to perform, but failure to do so results in a poor playing technique, giving imprecise play.

It is a principal object of the present invention to provide a billiard cue which is easier to use than a conventional cue as described above, by assisting a player in restraining rotary movement of the cue whilst striking the ball.

45 According to this invention, a cue for playing billiards, snooker or the like comprises a butt portion, a shaft extending from the butt portion and terminating in a tip for striking the ball, the shaft having a cross-section which tapers from the butt portion to the tip and having a pair of substantially planar flanks extending along the length thereof which flanks lie at an angle to one another so as thereby to define a pair of shaft guide surfaces on which the shaft of the cue may be supported when in use.

It will be appreciated that unlike a conventional billiard cue, the shaft of a cue of the present invention has a non-circular cross-sectional shape. The cross-sectional shape of the shaft is so formed as to provide a pair of guide surfaces which may bear on a crutch defined by the fingers or finger and thumb of the hand of a user, or by a rest device, so as thereby to resist rotation of the cue, about the

cue axis as the cue is moved to strike a ball. In this way, the precise operation of the cue may be much improved, leading to better accuracy and control, especially by relatively inexperienced players.

70 The cross-sectional included angle between the two flanks in a cue of the present invention preferably lies in the range of from 30° to 90°, though the most preferred included angle is around 60°. Whilst this angle is not critical, nevertheless it should be such that the cue may naturally fall into a crutch defined by the fingers (or the index finger and thumb) of a user's hand, so as to be supported by those flanks which may run along the fingers so as thereby to control the motion of the shaft and hence of the cue, as a whole.

Conveniently, each of the two flanks has an elongate edge which lies closely adjacent the corresponding edge of the other flank, the material of the shaft between said two elongate edges being rounded to give the cue an aesthetically acceptable appearance, and to give a smooth surface for running along a user's fingers. The other elongate edges of the two flanks will be spaced relatively far apart, and though the profile of the cue shaft between the other two edges is not particularly critical as regards the performance of the cue when in use, nevertheless it is preferred for the profile to be generally arcuate.

The tip of a cue of this invention should be of circular cross-sectional shape, and typically may comprise a pad of leather held to the shaft by a metallic ferrule. Preferably the cross-sectional shape of the shaft blends smoothly from circular at the end where the tip is supported, to the part of the shaft near the tip where the flanks commence. Similarly, from the other end of the flanks, the shaft cross-section should blend smoothly to join the butt portion of the cue.

The butt portion of the cue may take any conventional form, and so may be of circular cross-sectional shape, or of some other suitable non-circular cross-sectional shape. Equally, the butt portion may be of a generally uniform cross-sectional shape, or may taper generally from the free end towards the shaft.

115 The cue may be manufactured in one piece from a suitable material such as a wood or a synthetic plastics material, perhaps reinforced as appropriate for example with glass fibres. Also, as is known in the art, the cue may be made in more than one piece, which pieces may be connected together when the cue is to be used, but which may be separated for instance when the cue is to be carried from place to place.

125 By way of example only, one specific embodiment of billiard cue arranged in accordance with the present invention will now be described in detail, reference being made to the accompanying drawings, in which:

130 Figure 1 is side view of a cue of this inven-

tion;

Figures 2A to 2F are cross-sectional views of the cue of Figure 1, taken respectively on lines A-A, B-B, C-C, D-D, E-E and F-F, all marked on Figure 1; and

Figure 3 is a general perspective view of the cue of Figure 1.

The cue illustrated in the accompanying drawings is manufactured in one piece by suitable shaping of a straight-grained piece of wood, and has a butt portion 10 faring into a shaft 11 terminating in a tip 12. The tip includes a leather pad 13 held in place by a brass ferrule 14, crimped firmly in position on the end of the shaft so as securely to hold the pad in place on the end of the cue. As will be appreciated from Figure 2A, the tip region of the cue (including the pad and ferrule) has a circular cross-sectional shape, whereas the remainder of the cue has a non-circular cross-sectional shape.

The butt portion 10 of the cue has a generally symmetrical cross-sectional shape, this varying from an essentially square cross-sectional shape adjacent the cue shaft, as shown in Figure 2E, to a near-octagonal shape closer the free end of the butt portion, as shown in Figure 2F. The corner regions between the substantially planar sides of the butt portion are rounded, also as will be appreciated from Figures 2E and 2F.

The shaft of the cue has a generally irregular cross-sectional shape, including a pair of substantially planar flanks 15 extending at an angle to one another for substantially the whole of the length of the shaft of the cue. These flanks 15 should lie at substantially 60° to one another, so as to define generally a V-shape, the corner region 16 where the two flanks 15 meet being rounded, as shown. The material of cue opposed to this rounded corner region 16 is generally arcuately formed, though nearer the butt portion of the cue, this part of the shaft cross-section may assume two distinct curved surfaces 17 and 18, as best appreciated from the Figure 2D.

In the transition region 19 between the butt portion 10 and the shaft 11, the two flanks 15 may fare into two of the side surface of the butt portion, whereas the two distinct curved surfaces 17 and 18 of the shaft may blend into the other two side surfaces of the butt portion. In this way, a relatively smooth transition of the various surfaces of the cue may be obtained, leading to a most acceptable aesthetic appearance for the finished article.

When the cue of this invention as described above is being used, the shaft 11 may be rested in a crutch defined by two fingers or the index finger and thumb of the hand of a user, with the two substantially planar flanks 15 falling naturally in that crutch so as to support and guide the shaft of the cue. Any tendency to rotate the cue about its long axis

during a striking action on a ball will be resisted by virtue of this cross-sectional shape of the cue: for the cue to turn about its own axis the cue would have to move significantly both laterally and upwardly, riding up on one of the flanks. In this way, the cue of this invention may give a user—and especially a relatively inexperienced user, a most improved cue action, leading to better control.

CLAIMS

1. A cue for playing billiards, snooker or the like, which cue comprises a butt portion and a shaft extending from the butt portion and terminating in a tip for striking the ball, the shaft having a cross-section which tapers from the butt portion to the tip and having a pair of substantially planar flanks extending along the length thereof which flanks lie at an angle to one another so as thereby to define a pair of shaft guide surfaces on which the shaft of the cue may be supported when in use.

2. A cue according to claim 1, wherein the cross-sectional included angle between the two flanks lies in the range of from 30° to 90°.

3. A cue according to claim 2, wherein the included angle between the two flanks is substantially 60°.

4. A cue according to any of claims 1 to 3, wherein each of the two flanks has an elongate edge which lies closely adjacent the corresponding edge of the other flank, the material of the shaft between said two elongate edges being rounded.

5. A cue according to claim 4, wherein each of the two flanks has a second elongate edge opposed to said first elongate edge and the material of the shaft between said second elongate edges is generally rounded.

6. A cue according to any of the preceding claims, wherein the shaft terminates in a tip of circular cross-sectional shape, the cross sectional shape of the shaft blending smoothly from the flanks thereof into the circular tip end.

7. A cue according to any of the preceding claims, wherein the flanks of the shaft blend smoothly into the butt portion.

8. A cue according to any of the preceding claims, wherein the cue is manufactured from a synthetic plastics material reinforced with glass or carbon fibres.

9. A cue for playing billiards, snooker or the like and substantially as hereinbefore described with reference to and as illustrated in the accompanying drawings.

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INVENTOR-INFORMATION:

NAME	COUNTRY
RUSSELL, GARY EDWARD	N/A

ASSIGNEE-INFORMATION:

NAME	COUNTRY
RUSSELL GARY EDWARD	N/A

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ABSTRACT:

A cue for playing snooker, billiards or the like has a butt portion 10 for gripping by a user and a shaft 11 extending from the butt portion and terminating in a tip 12, the shaft 11 having two substantially planar flanks (15, Figs. 2B-2D) extending along its length and lying at an acute angle to one another. These flanks serve as guide surfaces

on which the cue can be supported when striking a ball. The cue may be made from wood or fibre-reinforced synthetic plastics. 